WHAT IS CLAIMED IS:

1. A method for connecting component-side pad electrodes and substrate-side pad electrodes when a surface-mount component is mounted onto the substrate, wherein the component-side pad electrodes are formed on the surface of the component opposed to a substrate, solder bumps are formed on the component-side pad electrodes, and substrate-side pad electrodes are formed on the surface of the substrate, the method comprising:

arranging the substrate-side pad electrodes inside a component-corresponding region which corresponds to the plan view of the surface-mount component;

setting the length of each of the substrate-side pad electrodes in the direction substantially perpendicular to the outer edge of the component-corresponding region larger than the length of the corresponding component-side pad electrode in the direction substantially perpendicular to the outer edge of the surface-mount component;

placing the surface-mount component on the substrate so that each of the solder bumps are opposed to a predetermined substrate-side pad electrode; and

melting the solder bumps by heating to connect each of the component-side pad electrodes to one of the substrate-side pad electrodes through the solder.

2. A method for connecting pad electrodes in accordance with claim 1, wherein the width of each of said component-side pad electrodes and the width of the solder bump on each of said component-side pad electrodes are larger than the width of each of said substrate-side pad electrodes.

3. A method for inspecting the connection state of pad electrodes comprising the steps of:

connecting the pad electrodes by a connection method in accordance with claim 1;

detecting the shapes of the solder after each of said solder bumps has been melted and flowed on one of said substrate-side pad electrodes by a nondestructive inspection; and

making a pass/fail discrimination of the connection state between each of the component-side pad electrodes and one of the substrate-side pad electrodes.

4. A method for inspecting the connection state of pad electrodes comprising the steps of:

connecting the pad electrodes by a connection method in accordance with claim 2;

detecting the shapes of the solder after each of said solder bumps has been melted and flowed on one of said substrate-side pad electrodes by a nondestructive inspection; and

making a pass/fail discrimination of the connection state between each of the component-side pad electrodes and one of the substrate-side pad electrodes.

5. A method for inspecting the connection state of the pad electrodes comprising the steps of:

connecting the pad electrodes by a connection method in accordance with claim 1;

obtaining an X-ray transmission image by radiating X rays from the back surface side of said substrate; and

detecting the shape of solder after each of said solder bumps has been melted and flowed on one of said substrate-side pad electrodes, from the obtained X-ray transmission image; and

making a pass/fail discrimination of the connection state between each of the component-side pad electrodes and one of the substrate-side pad electrodes.

6. A method for inspecting the connection state of the pad electrodes comprising the steps of:

connecting the pad electrodes by a connection method in accordance with claim 2;

obtaining an X-ray transmission image by radiating X rays from the back surface side of said substrate; and

detecting the shape of solder after each of said solder bumps has been melted and flowed on one of said substrate-side pad electrodes, from the obtained X-ray transmission image; and

making a pass/fail discrimination of the connection state between each of the component-side pad electrodes and one of the substrate-side pad electrodes.

7. A connection structure comprising:

a substrate having a surface and substrate-side pad electrodes formed on the substrate surface;

a surface-mount component having a surface and component-side pad electrodes formed on the surface, the surface being opposed to the substrate with each component-side pad electrode opposed to one of the substrate-side pad electrodes;

wherein the substrate-side pad electrodes are arranged inside a component-corresponding region, the length of each of the substrate-side pad electrodes being larger than that of the corresponding component-side pad electrode, and wherein each of the component-side pad electrodes is connected to the corresponding substrate-side pad electrode by a solder which has flowed between the component-side pad electrodes and the substrate-side pad electrodes by melting of a solder bump.

8. A connection structure between the pad electrodes in accordance with claim 7, wherein the width of each of said component-side pad electrodes is set to be larger than the width of each of said substrate-side pad electrodes.